

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.	:	<b>10/628,424</b>	Confirmation No.: 5300
Applicant	:	<b>Jeffrey A. Read</b>	
Filed	:	<b>07/29/2003</b>	
TC/A.U.	:	<b>1795</b>	
Examiner	:	<b>Rhee, Jane J.</b>	
Docket	:	<b>ARL 01-37</b>	
Customer No.	:	<b>21364 Office of Command Counsel</b>	
		<b>U.S. Army Materiel Command</b>	

**For: ELECTROLYTE FOR METAL-OXYGEN BATTERY AND METHOD FOR ITS PREPARATION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria VA 22313-1450

**VIA FACSIMILE (571) 273-8300**

**REQUEST FOR RECONSIDERATION**

Sir:

This communication is responsive to a telephone conversation with the Examiner.

In the Office Action dated June 4, 2008, the Examiner rejected claims 13-17 under 35 U.S.C. § 102(e) as being anticipated by Narang, et al. (US6991876). Following receipt of the June 4, 2008 Office Action, Applicant's attorney contacted the Examiner and was informed that an error had occurred. U.S. Patent No. 6,991,876 to Narang, et al, issued from U.S. Patent Application Publication No. 20040091774 (Narang '774 Publication), which was previously withdrawn as a reference. The Examiner suggested that the matter be addressed by a letter to the Office. On June 16, 2008, a Communication to the Examiner was filed. In a subsequent conversation between the Examiner and the undersigned, the Examiner indicated that the docket clerk failed to recognize the Communication to the Examiner as a reply that required docketing, and that a request for reconsideration should be filed. Accordingly, the Applicant is filing this request for reconsideration responsive to the Examiner's request.

It is noted that at the time of the June 4, 2008 Office Action, the claims in the application were under final rejection and a notice of appeal had been filed. See MPEP 706.07(e).

Applicant's claims are directed to a metal oxygen battery. In the Office Action dated June 4, 2008, it is stated, "[a]s to claims 13-17, Narang et al. discloses a lithium oxygen battery. . . ." It is respectfully submitted that Narang, et al. (US6991876) is not a metal-oxygen (or lithium oxygen) battery as claimed in the claims of the present application for the following reasons.

Narang is directed to a battery containing “an active oxygen-containing cathode” (see Col. 3, lines 50-55). The disclosure of the Narang ‘876 Patent states:

With respect to the cathode material, is contemplated that the *cathode material* comprises any material that includes an *active oxygen species* ionically or covalently bound to a metal, carbon, silicon or other suitable element. The term “active oxygen species” as used herein refers to a reactive  $O_2^-$  and  $O_2^{2-}$ . [*Emphasis added*]

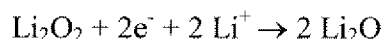
Col. 4, lines 64-67.

Suitable inorganic compounds and materials for cathode materials are those that comprise an active oxygen species or the ability to generate an active oxygen species . . . .

In yet further alternative species, cathode materials may also comprise metal peroxides or superoxides, such as lithium peroxide, sodium peroxide, lithium superoxide, sodium superoxide, etc.

Col. 5, line 62 – Col. 6, lines 3-10.

During the operation of the battery of Narang ‘876 Patent, the cathode reaction (as stated at Col. 8, line 46, et seq.) ***begins*** with lithium peroxide as the cathode material:



In contrast, an example of a cathode for a metal oxygen battery is disclosed in U.S. Patent No. 7,147,967 (‘967 Patent), entitled “Cathode for Metal-Oxygen Battery,” filed on the same date as the present application and invented by the Applicant. As stated in the ‘967 Patent:

During the discharge of the [lithium-oxygen battery] cell, oxygen is reduced at the electro-active cathode to produce  $O^{2-}$  and  $O_2^{2-}$  ions which react with the lithium to ***produce***  $Li_2O_2$  and/or  $Li_2O$ . . . .

[*Emphasis added*]

Likewise, claim 16 of the present application recites, *inter alia*, a lithium-oxygen battery:

where oxygen is reduced at a cathode to produce  $O^{2-}$  or  $O_2^{2-}$  ions which react with lithium to ***produce***  $Li_2O_2$ , that deposits on the cathode.

[*Emphasis added*]

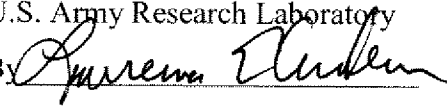
Applicant respectfully requests that a timely Notice of Allowance be issued in this case. The Director is hereby authorized to charge any additional fees or underpayments under 37 C.F.R. § 1.16 & 1.17; and credit any overpayments to Deposit Account No. **19-2201** held in the name of U.S. Army Materiel Command.

Respectfully submitted,

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